REPORT

ON A

PROPOSED RETIREMENT SYSTEM

FOR

STATE EMPLOYEES OF MARYLAND

Prepared by the Board of Trustees of the
State Employees' Retirement System

1939

2 8-7-10

788986

REPORT

ON A

PROPOSED RETIREMENT SYSTEM

FOR

STATE EMPLOYEES OF MARYLAND

674

Prepared by the Board of Trustees of the
State Employees' Retirement System

1939

TABLE OF CONTENTS

January 25, 1939

Honorable Herbert R. O'Conor,
Governor of the State of Maryland,
Annapolis, Maryland.

Sir:

Chapter 489 of the Laws of 1937 provides that the Board of Trustees of the State Employees' Retirement System established by that act shall "make a study of retirement systems and report back to the next session of the General Assembly, with recommendations as to the advisability of creating a permanent and sound retirement system and whether such system should be contributory or non-contributory."

The attached report submits the recommendations of the Board, prepared in accordance with this section of the law. Briefly, the Board recommends that no change be made in the present retirement system for teachers but that a system be established similar to the State Teachers' Retirement System to cover other classes of State employees. The Board proposes that the membership in the new system be optional with all present employees and compulsory with all future employees of the State. In this way eventually a uniform retirement system will cover all State employees.

The Board of Trustees trusts that the proposed retirement system will be found acceptable to you and the members of the Legislature and that its adoption will result in a permanent and satisfactory solution of the retirement problem of the State.

Respectfully submitted,

BOARD OF TRUSTEES,
STATE EMPLOYEES' RETIREMENT SYSTEM

By..
HARRY C. JONES, *Secretary.*

INTRODUCTION

The State of Maryland has had under consideration for a number of years the adoption of a suitable retirement plan for State employees. In 1927 it adopted a sound retirement system which covers the teachers of the State, exclusive of the teachers in Baltimore who are included under the municipal retirement system operated by that City. In 1931 a retirement system like that covering the teachers was considered for all general State employees but was not referred to the Legislature at that time. While pension laws were adopted for certain small special groups of State employees, the main group of general State employees remained without retirement coverage, until, in 1937 the need for some means of retiring superannuated or disabled employees became so urgent that a retirement act (Chapter 489 of the Acts of 1937) was passed. This act provides for the payment of pensions to employees who voluntarily apply for retirement at age 70, or in the case of prior disability. The entire cost of the pensions is provided by the State.

At the time of passage of Chapter 489 of the Acts of 1937 it appeared that while the act would meet the need at that time of providing for the immediate retirement of an accumulation of unfit employees, it might not prove to be the best possible form of retirement act to cover State employees indefinitely. Consequently, the legislature instructed the Board of Trustees of the system established by that act, to make a study of retirement systems, and on the basis of its study, to make recommendations as to the advisability of creating a permanent and sound retirement system for State employees.

As a result of its study, the Board of Trustees now recommends that a jointly contributory retirement system, modeled along the lines of the system covering State teachers, be adopted for general State employees and that the provisions for retirement under Chapter 489 of the Acts of 1937 be discontinued. For the smaller groups of State employees who are included under special acts the Board proposes that the choice be left with the individual employees, whether they desire to enter this new system, or continue under their existing act. The Board recommends that all employees entering the State service in the future become members of the proposed new retirement sytem. In this way gradually the existing laws will become inoperative and the State will have one jointly contributory plan covering its general employees and one jointly contributory plan covering its teachers.

The Board proposes that the new system for general employees be established on a reserve basis, similar to the basis used for the teachers' retirement system, and that the general plan of financing used in the State teachers' system be followed in the new system. This recommendation of the Board is based upon an investigation of the various plans of financing retirement systems for public employees used by other States and by the City of Baltimore in this State. The general consensus seems to be that the safest and most economical plan from the viewpoint of both the employees and the taxpayers. is one to which the government and employees both contribute during the active service of employees, so that reserves are built up and provision made for the retirement of the employees in advance of their actual separation from service. In New York State, largely due to the efforts of the State Pension Commission, systems of this type have superseded the old non-reserve systems for State employees. New York State now has two main retirement systems on the jointly contributory reserve basis, one for teachers and one for other state employees. Similarly New Jersey has two systems operating on a jointly contributory reserve basis and covering, respectively, teachers and other state employees. The States of Rhode Island and Pennsylvania have similar systems for their employees. If now Maryland adopts the recommendation of this Board, it will follow the precedents set by other states and eventually will have all its employees under one or the other of two soundly constructed retirement plans.

This report gives first a brief description of the main provisions of the existing retirement acts of the State. This is followed by a summary of the main provisions of the proposed retirement system and an estimate of the cost of its adoption. A discussion of the benefits, together with illustrations of the benefits, is then given. The report prepared by the actuary giving the basis used in the calculations of the cost is given in the first appendix to this report. A second appendix giving the proposed form of legislative act to establish the new system follows.

N. B. The tabulations upon which the estimates shown herein are based have been compiled for the Board by George B. Buck, actuary of the State Teachers' Retirement System and the Employees' Retirement System of Baltimore City, and are on file at the office of the Secretary.

EXISTING RETIREMENT PROVISIONS FOR STATE EMPLOYEES

The following summary indicates the various retirement laws applying to State employees at the present time and shows briefly the type of plan and the approximate number of employees included under each law.

Legal References	Group Covered	Type of Plan	Approximate Number of Employees Included Under Law
Article 77, Sections 92-106 (1935 Supplement)	Public School Teachers of State (exclusive Baltimore Teachers). Members of Faculty and Staff of University of Maryland.	Jointly Contributory	5,405
Chapter 489, Acts of 1937 which is Article 73-B Annotated Code	Employees of State not entitled to pensions under other laws (exclusive of elected officials).	Non-contributory	5,472
Article 88-B, Sections 31-35 of Annotated Code (1935 Supplement)	State police and license examiners of the Commissioner of Motor Vehicles.	Jointly Contributory	117
Article 17, Sections 75-78 of Annotated Code (1935 Supplement)	Employees in the service of Clerks of the Court and Register of Wills.	Non-contributory	393*
Article 26, Section 46 of Annotated Code (1924 edition)	Judges, judges of circuit courts for counties, supreme bench of Baltimore, court of appeals.	Non-contributory	32*
Article 27, Sections 706-710 of Annotated Code (1924 edition) as amended by Chapter 219, Acts of 1937	Employees of Board of Welfare and institutions under control of Board of Welfare.	Non-contributory	253

*Approximate number.

The following digest has been prepared to indicate in general form the main benefit and contribution provisions of the existing retirement plans of the State.

DIGEST OF PRINCIPAL EXISTING RETIREMENT PROVISIONS FOR STATE EMPLOYEES

Main Item	Teachers	State Employees	Police	Court Employees	Judges	Institutional Employees
I. BENEFITS						
a. Service						
1. Conditions for Grant	Attainment of age 60; compulsory at age 70.	Ten years of service and attainment of age 70.	Ten years continuous service and attainment of age 55.	Twenty - five years of service and attainment of age 60.	Ten consecutive years of service preceding age 70 or any fifteen consecutive years of service and attainment of age 70.	Twenty years of service of which ten at least are consecutive. Compulsory at age 64.
2. Amount of Annual Allowance	Approximately 1/70 of average annual salary of the last ten years of service for each year of service.	1/70 of average annual salary of the last ten years of service for each year of service.	Two per cent of final annual salary for each year of service; maximum $1,000 per year.	1/70 of average annual salary of last five years of service for each year of service.	$2,400 per year.	One half final salary.
b. Accidental Disability						
1. Conditions for Grant	Same as ordinary disability.	No service nor age requirement.	No benefit.	Same as ordinary disability.	No benefit.	No service nor age requirement.
2. Amount of Annual Allowance	Same as ordinary disability.	One half final salary.	No benefit.	Same as ordinary disability.	No benefit.	One half final salary.

Main Item	Teachers	State Employees	Police	Court Employees	Judges	Institutional Employees
c. Ordinary Disability						
1. Conditions for Grant	Five years of service.	Ten years of service.	No benefit.	Fifteen years of service.	No benefit.	No benefit.
2. Amount of Annual Allowance	9/10 of 1/70 of average annual salary of the last ten years of service for each year of service, with a minimum of 25 per cent.	1/70 of average annual salary of the last ten years of service for each year of service.	No benefit.	1/70 of average salary of last five years of service.	No benefit.	No benefit.
d. Accidental Death	Same as ordinary death.	No benefit.	No benefit.	No benefit.	No benefit.	No benefit.
e. Ordinary Death	Upon death a payment of the accumulated contributions to beneficiary and if death after one year of service a lump sum payment of one half of average annual salary of the last ten years of service.	No benefit.	No benefit.	No benefit.	No benefit.	No benefit.
f. Resignation and Dismissal	Upon resignation or dismissal a payment of the member's accumulated contributions.	No benefit.	No benefit.	No benefit.	No benefit.	No benefit.

Main Item	Teachers	State Employees	Police	Court Employees	Judges	Institutional Employees
II. SOURCES OF INCOME						
a. Contributions by Employees	Each member contributes on a savings bank basis at a rate computed to be sufficient to provide one-half the cost of his service retirement allowance payable at age 60 on account of service as a member.	None.	An amount not greater than 2 per cent. of salary.	None.	None.	None.
b. Appropriations by State	The State makes contributions based on teachers' salaries so that when members are ready to retire reserves will have been accumulated adequate to provide the pensions and other benefits payable by the State.	The State makes appropriations sufficient to cover the maturing pension roll without accumulating any reserves.	The State makes appropriations sufficient to cover the maturing pension roll, together with payments of at least $1,000 per annum towards the accumulation of a reserve plus 4 per cent. interest on the unpaid pension fund reserve as determined by actuarial methods.	The State makes appropriations sufficient to cover the maturing pension roll, without accumulating any reserves.	The State makes appropriations sufficient to cover the maturing pension roll, without accumulating any reserves.	The State makes appropriations sufficient to cover the maturing pension roll, without accumulating any reserves.

The digest on page 11 shows that the largest group of State employees is covered by the non-contributory retirement provisions provided under Chapter 489 of the Acts of 1937. The second largest group is represented by the teachers who have a jointly contributory retirement plan. There are four other laws covering State employees but the number of employees under each one of these laws is small.

The summary of the benefit provisions indicates that there is no uniformity of benefit or retirement provisions for State employees. Teachers may retire at age 60 regardless of service. General State employees under Chapter 489 are required to remain in service to age 70, unless disabled. The smaller classes of employees have a variety of provisions ranging from retirement after 20 years of service in the case of institutional employees to retirement at 70 in the case of judges. The amounts of benefits also vary. The teachers' system provides for a benefit graded according to years of service which approximates 1/70 per year of service or half salary after 35 years. Chapter 489 provides a similar benefit, but the entire cost of the benefit is provided by the State, whereas in the case of the teachers' plan 50 per cent. of the benefit on account of membership service is provided by the teacher. Similarly, there is variation in the benefits for smaller special groups.

The conclusion reached by the Board of Trustees from a review of the existing provisions is that a new retirement plan to apply uniformly to all State employees except teachers, will best meet the needs of the State. In other words, rather than attempt to reorganize any of the existing plans, it proposes that a new system be established which will ultimately absorb all the employees of the State. The details of the proposed retirement system are described below.

SUMMARY OF THE MAIN PROVISIONS OF THE PROPOSED RETIREMENT SYSTEM

The following summary gives in brief form the main provisions of the proposed retirement system. For the detailed provisions, reference should be made to the proposed legislative act which is given in Appendix II of this report.

Date Of Establishment

October 1, 1939 is proposed as the date of establishment of the new system.

Membership Of System

The membership of the system will consist of the following:

(a) All State employees except teachers, who enter the service of the State after the establishment of the system, will be required to become members as a condition of their employment. This means all classes of State employees including those who enter the State police service, the courts, the institutions and the various other services now covered by special retirement acts.

(b) All employees not covered by special retirement acts, who are in service on the date the new system is established will be included in the membership, unless within thirty days next following the date of establishment of the system they elect to waive membership. (This includes the employees who are now covered by Chapter 489 of the Acts of 1937 since the proposed system will supersede that act.)

(c) All employees, except teachers, who are covered by any one of the existing retirement laws, who are in service on the date the new system is established, may join the new system by filing with the Board of Trustees on a form prescribed by the Board, a duly executed waiver of all benefits which may inure to them under the provisions of the law by which they have been formerly covered.

Administration

The administration of the retirement system will be vested in a board of Trustees of five members. The Board will consist of:

The State Comptroller, Ex-officio
The State Employment Commissioner, Ex-officio
The State Budget Director, Ex-officio

In addition, two members of the Board will be elected by and from the membership, one from the employees in the classified service and the second, from other employees. (The election of these members will take place upon the expiration of the term of the two appointed members of the present Board of Trustees, who will serve until their respective terms of office expire.)

The general duties of the Board of Trustees shall consist of:
(1) Keeping the system actuarially sound.
(2) Investing and managing the reserve funds of the system.
(3) Granting retirement allowances as provided by the retirement act.

Provision For Safeguarding The System And Insuring Its Permanency

(a) Definite restriction will be placed upon the investments to insure a conservative investment policy. The restrictions on the investment of the funds will be those imposed by the State upon life insurance companies in the making and disposing of their investments.

(b) Provision will be made in the retirement act to provide that the combined contributions by State and employees shall be adequate to cover the cost of the benefits proposed.

(c) Provision will be included for guaranteeing the maintenance of proper reserves.

(d) Provision will be included for periodic actuarial revaluations and investigations.

Benefits

The proposed plan provides for the payment of retirement allowances to employees retiring on account of service or disability. A small lump sum death benefit is payable upon the death of an employee in active service. Provision is included for a return of the employee's contributions with interest in the event of withdrawal or death before retirement. Described in greater detail the benefits are as follows:

Service Retirement Allowance

Condition for Allowance. Upon the demand of any employee who has attained the age of 65, a retirement allowance is payable. Retirement is compulsory at age 70 except in the case of elected and appointed officers whose continued participation in the proposed system, shall remain voluntary.

Amount of Allowance. The retirement allowance is approximately 1/70 of the average final compensation* of the employee multiplied by the number of years of service rendered prior to the date of retirement.

The retirement allowance consists of two parts, an annuity provided by the contributions of the employee on the "savings bank basis" and a pension provided by the State.

The annuity provided by the employee is exactly equal in value to his contributions with interest at the time of his retirement. The rates are set to provide an annuity at age 65 of approximately 1/140 of the average final compensation of the employee multiplied by his years of membership.

The pension is 1/140 of the average final compensation of the employee multiplied by his years of membership, i. e., approximately equal to his annuity.

In addition, if an employee receives credit for service rendered before the establishment of the system, the State provides an additional pension of 1/70 of his average final compensation multiplied by the number of years of service rendered prior to the establishment of the system for which he receives credit.

Disability Retirement Allowance

Disability Due to Ordinary Causes

Condition for Allowance. Upon the occurrence of disability due to causes not the result of an accident in the actual performance of duty, an employee who has completed ten years of service receives a retirement allowance.

Amount of allowance. In the event of ordinary disability, an employee receives a total retirement allowance of 9/10 of 1/70 of his average final compensation multiplied by the number of years of his creditable service. The minimum allowance payable is 25% of the average

*The average annual compensation of the last 10 years of service is hereafter referred to as the "Average final compensation."

final compensation except in the case of employees entering the service after age 45. In the latter case, the minimum rate of allowance is 9/10 of the rate of allowance which would have been payable at age 65.

The accumulated contributions of the employee are used to purchase an annuity and the State provides a pension, which, with this annuity, is sufficient to provide the total allowance.

Disability Due to Accident in the Actual Performance of Duty

Condition for Allowance. Upon the occurrence of disability due to causes resulting from an accident in the actual performance of duty, regardless of the age or length of service of the employee, an employee is granted a retirement allowance.

Amount of Allowance. In the case of accidental disability the employee receives a service retirement allowance if he has attained age 65. Otherwise he receives a pension payable by the State equal to 66-2/3% of his average final compensation. In addition, the contributions made by the employee together with interest are returned to him in the form of an annuity.

Death Benefit

Condition for Benefit. Upon the death of an employee prior to retirement, a benefit is paid to such person as he shall have nominated who has insurable interest or to his estate.

Amount of Benefit. In the event of death, all contributions made by the employee with interest are returned to his estate or designated beneficiary. In addition, if the employee has had one or more years of service, a lump sum payment is made from the State's contributions equal to 50% of the average final compensation of the employee.

Return of Contributions

Upon the withdrawal of an employee prior to retirement, the entire amount of his contributions with interest accumulations is returned to him.

Special Privileges Upon Retirement

Employees upon retirement may elect to receive the actuarial equivalent of their retirement allowances in any one of the following optional forms:

Option 1—Reduced annuity payments with a provision that in the case of death before such payments have equalled the value of the member's accumulated contributions at the date of retirement, the balance shall be paid to such person as he shall have designated at retirement or to his estate.

Option 2—Reduced payments covering two lives with the provision that at the death of the employee the same allowance shall be continued throughout the life of such other person as the employee shall have designated at the time of his retirement.

Option 3—Reduced payments covering two lives with the provision that at the death of the employee one-half of his allowance shall be continued throughout the life of such other person as the employee shall have designated at the time of his retirement.

Contributions

By Members

(a) Each member is to contribute a definite percentage of his salary determined by occupational classification, sex and age at the time of becoming a member. Table 1 on page 21 gives the rates In the clerical and administrative group they range from 3.10% to 6.97%, while in the laborers' group they range from 2.58% to 6.35%.

(b) The initial rate payable by the member is computed to remain unchanged to retirement.

(c) At retirement, members are to receive the exact annuities which the contributions credited to their account with interest will provide. In case of withdrawal or death before reaching the retirement age, the amount so credited with interest will be returned. Upon disability before attaining age 65 the disabled member's contributions will be used towards the provision of an annuity.

Contributions By State

(a) The State will make annual contributions on account of each member of the retirement system sufficient to provide for the service and disability pensions payable by the State on account of service rendered while the employee is a member and for the lump sum death benefits. For employees in service when the system is established the State will make additional contributions to provide the additional annuities allowable on account of their prior service.

(b) The contributions on account of membership service or the normal contributions will be approximately 2.07% of the payroll.

(c) The contributions on account of past service or the accrued liability contributions will be approximately 1.94% of the payroll. The accrued liability contribution will be discontinued in about 30 years.

Financial Provisions

The proposed retirement act provides for the maintenance of four accounts or funds into which contributions on account of annuities and pensions are made and from which benefits are paid and one fund from which the administrative expenses are paid. The five funds are maintained solely for the purposes of simplifying the operation of the system and making it possible to locate immediately the source from which any surplus or deficit indicated by an actuarial valuation has developed.

THE COST OF THE PLAN TO EMPLOYEES AND TO THE STATE

In preparing this plan the Board of Trustees had endeavored to make no recommendations without knowledge of the full cost, both to employees and to the public, which would be involved in adopting the recommendations. In developing the provisions of the system, this knowledge has been an important factor in deciding what the recommendations of the Board of Trustees should be.

Contributions Payable By Employees

It is proposed that each employee contribute a certain percentage of his salary according to the age at which he becomes a member of the retirement system. The percentage will provide in the average case one half of the total retirement allowance payable on account of service rendered by the employee after he becomes a member of the system.

An account will be opened for the employee to which his contributions with interest will be credited. At the time of retirement the total amount in his account will be used to provide an annuity and in the average case this annuity will be approximately equal to the amount of the pension provided by the State. If the employee leaves the service without a retirement allowance the full amount of his contributions with interest will be returned to him; or in the case of death, to his estate or a beneficiary named by him. Therefore, the employee's contributions will be used for his sole benefit in every contingency.

The following table gives the rates of contribution proposed for employees. Separate rates are shown for men and women employees in each occupational group, namely, for clerical, administrative, technical and professional employees, that is employees whose work requires principally mental exertion, and for laborers and mechanics, that is, employees whose work requires principally physical exertion. The rates for women are slightly higher than the rates for men principally because of the difference in the rates of mortality after retirement as they apply to men and women.

TABLE 1

RATES OF CONTRIBUTION PAYABLE BY EMPLOYEES EXPRESSED AS PERCENTAGES OF SALARY

Age	Clerks		Laborers	
	Men	Women	Men	Women
15	3.10%	3.54%	2.58%	2.77%
16	3.08	3.52	2.58	2.77
17	3.06	3.50	2.58	2.77
18	3.05	3.48	2.59	2.78
19	3.04	3.47	2.59	2.78
20	3.04	3.47	2.59	2.78
21	3.05	3.48	2.60	2.80
22	3.07	3.50	2.62	2.82
23	3.09	3.52	2.65	2.85
24	3.11	3.55	2.69	2.89
25	3.14	3.58	2.74	2.94
26	3.17	3.62	2.78	2.99
27	3.21	3.66	2.82	3.04
28	3.25	3.71	2.87	3.09
29	3.29	3.76	2.92	3.14
30	3.34	3.81	2.97	3.19
31	3.38	3.86	3.03	3.25
32	3.43	3.91	3.09	3.31
33	3.48	3.97	3.15	3.37
34	3.54	4.04	3.21	3.44
35	3.60	4.11	3.27	3.51
36	3.66	4.18	3.34	3.59
37	3.72	4.25	3.41	3.66
38	3.78	4.32	3.48	3.74
39	3.84	4.39	3.55	3.82
40	3.91	4.46	3.63	3.90
41	3.98	4.54	3.70	3.98
42	4.05	4.62	3.78	4.06
43	4.12	4.70	3.86	4.14
44	4.19	4.78	3.94	4.23
45	4.27	4.87	4.02	4.32
46	4.35	4.96	4.10	4.41
47	4.43	5.05	4.19	4.50
48	4.51	5.14	4.28	4.59
49	4.59	5.23	4.37	4.69
50	4.67	5.33	4.46	4.79
51	4.76	5.43	4.55	4.89
52	4.85	5.54	4.65	4.99
53	4.94	5.65	4.75	5.10
54	5.04	5.76	4.85	5.21
55	5.14	5.87	4.95	5.32
56	5.24	5.98	5.05	5.43
57	5.34	6.10	5.15	5.54
58	5.44	6.22	5.25	5.65
59	5.55	6.34	5.36	5.76
60	5.66	6.46	5.47	5.87
61	5.77	6.58	5.58	5.99
62	5.88	6.71	5.69	6.11
63	5.99	6.84	5.80	6.23
64 or over	6.11	6.97	5.91	6.35

The age at which the employee begins to make contributions is shown in the first column and then the rates for the various groups are given. The table shows that a male employee entering the proposed plan at age 25 would contribute to the fund 3.14 per cent. of his salary if he were classified as a clerical employee, or 2.74 per cent. if he were classified as a laborer. His contributions would continue at the initial rate until age 65. At age 65 he would be eligible for retirement and on retirement the total amount of his accumulated contributions would be used to purchase an annuity. Although the percentage rate of contribution of an employee remains constant throughout, the actual amount contributed from year to year does not remain constant, but changes as the salary of the employee changes. For example, the clerical employee referred to above who begins contributing at age 25 or 3.14 per cent. of his salary would pay, if his salary at the time of entering the system is $90 a month, a monthly contribution of $2.83 the first year. If in the next year his salary should be increased to $100 per month his contribution would still be 3.14 per cent. of the salary but the amount would be $3.14 per month.

Contributions Payable By The State

Since there is no benefit provided by the State on account of the employee who leaves the service before retirement, a slightly different method of contribution is proposed for the State's payments. The State needs to make only sufficient contributions to provide the desired retirement allowances and death benefits for those employees who become eligible for benefits, without matching the contributions of employees who will withdraw from the service before retirement. The contribution which will be payable by the State for benefits on account of service rendered after the establishment of the plan may be termed the "normal contribution" of the State.

Normal Cost of Plan

Under the proposed plan of financing the State will contribute annually to the retirement plan an amount equivalent to a certain proportion of the salary of each employee entering the service of the State. This contribution will be computed to provide the share of the total retirement allowances of all new employees for which the State will be responsible.

On the assumption that in the future employees will enter the State service at the average cost age of the present active force, the contributions payable for new employees will average approximately 2.07 per cent. of payroll. This normal cost of 2.07 per cent. is based on the average cost age of the present active force. The rates for individual employees will vary according to ages at entrance. The following tables show the rates required on account of new employees entering the service at ages ranging from 20 to 40.

TABLE 45

THE RATES OF CONTRIBUTION PAYABLE BY THE STATE TO PROVIDE THE BENEFITS OF NEW ENTRANTS EXPRESSED AS PERCENTAGES OF SALARY

CLERKS

Age	Total All Benefits	Service Benefit	Disability Benefits		Death Benefit
			Ordinary	Accidental	
20	.99%	.42%	.18%	.01%	.38%
21	1.03	.44	.18	.01	.40
22	1.08	.47	.18	.01	.42
23	1.14	.50	.19	.01	.44
24	1.19	.53	.19	.01	.46
25	1.24	.56	.19	.01	.48
26	1.32	.60	.20	.01	.51
27	1.39	.64	.20	.01	.54
28	1.46	.68	.20	.01	.57
29	1.54	.72	.21	.01	.60
30	1.62	.76	.21	.02	.63
31	1.71	.81	.22	.02	.66
32	1.80	.86	.23	.02	.69
33	1.88	.91	.23	.02	.72
34	1.99	.97	.24	.02	.76
35	2.09	1.03	.24	.02	.80
36	2.22	1.10	.25	.03	.84
37	2.33	1.17	.25	.03	.88
38	2.44	1.24	.25	.03	.92
39	2.57	1.31	.26	.03	.97
40	2.69	1.38	.26	.03	1.02

The plan proposed provides that the State will set aside a normal contribution of 2.07 per cent. of the payroll of present members. Since, however, the present employees are given full credit for back service, this normal contribution will not be sufficient to provide their entire pensions. The contribution required in addition to the normal contribution in order to take care of prior service is considered below.

ACCRUED LIABILITY

In order to determine the amount of contributions due on account of past service a valuation was made of the total benefits which will be paid to present employees by the State should employees receive full allowance on account of prior service. The value of the normal contributions was also determined and subtracted from the value of the total benefits which would be payable to present employees, leaving as the accrued liability the amount of the contributions required on account of prior service.

In preparing the valuation it was assumed that the pensions now payable under Chapter 489 of the Acts of 1937, aggregating $28,386 per annum payable to 68 persons, would be continued under the new plan. It was also assumed that all present employees now covered by Chapter 489 of the Acts of 1937 would elect to enter the system.

The valuation balance sheet prepared by the actuary shows that the benefits which will be paid to present employees and pensioners from the contributions of the State if the proposed system is adopted have a total present value of $4,461,220. The normal contributions of the State have a total present value of $1,256,099. If we subtract from the total liabilities of $4,461,220 the present value of future normal contributions amounting to $1,256,099 there remains a balance of $3,205,121, which is the amount of the accrued liability which must be taken care of if the fund is going to provide the proposed retirement benefits and continue to operate on a sound financial basis.

When a new retirement system is established or an unsound system reorganized, the accrued liability is generally liquidated by a series of payments spread over a number of years in the future rather than by a lump sum payment. The Board of Trustees recommends that the accrued liability be liquidated on the same basis that the State adopted for the teachers' system. This basis calls for an annual accrued liability contribution of 1.94 per cent. of payroll until the accrued liability is liquidated. On this basis it is expected that the accrued liability will be liquidated in about thirty years.

TABLE 46

THE RATES OF CONTRIBUTION PAYABLE BY THE STATE TO PROVIDE THE BENEFITS OF NEW ENTRANTS EXPRESSED AS PERCENTAGES OF SALARY

LABORERS

Age	Total All Benefits	Service Benefit	Disability Benefits		Death Benefit
			Ordinary	Accidental	
20	1.24%	.21%	.59%	.05%	.39%
21	1.29	.22	.61	.05	.41
22	1.34	.23	.63	.05	.43
23	1.41	.25	.65	.06	.45
24	1.48	.27	.68	.06	.47
25	1.56	.29	.71	.07	.49
26	1.62	.31	.73	.07	.51
27	1.70	.33	.75	.08	.54
28	1.79	.35	.78	.09	.57
29	1.88	.37	.81	.10	.60
30	1.98	.40	.84	.11	.63
31	2.07	.43	.86	.12	.66
32	2.16	.46	.88	.13	.69
33	2.25	.49	.90	.14	.72
34	2.35	.52	.93	.15	.75
35	2.46	.56	.96	.16	.78
36	2.57	.60	.99	.17	.81
37	2.68	.65	1.01	.18	.84
38	2.79	.70	1.03	.19	.87
39	2.92	.75	1.06	.20	.91
40	3.07	.80	1.10	.22	.95

Briefly then, to support the plan, the contributions required in addition to those of the members would be a normal contribution of 2.07 per cent. and an accrued liability contribution of 1.94 per cent., making a total annual contribution payable by the State of 4.01 per cent. of the payroll.

On this basis, the total annual payment from the State to the retirement system, based on the payroll of the prospective membership would be as follows:

TABLE 3

FIRST YEAR'S APPROPRIATION PAYABLE BY STATE TO SUPPORT THE PROPOSED NEW RETIREMENT SYSTEM

Payment	As Percentage of Payroll	Amount Based on Payroll
Normal	2.07%	$143,250
Accrued Liability	1.94	134,253
Total	4.01%	$277,503

The foregoing appropriation represents the estimated first year's cost to the State provided all present employees elect to be included in the new system.

Any employee now covered by an existing act may also enter the new system by waiving his benefits under the existing plan. To the contributions shown above will need to be added 4.01 per cent. of the salary of every such employee who elects to enter. This will not represent any additional cost to the State since as a whole the proposed plan will be less costly than the benefits of the existing plans covering special groups. Gradually the entire group of State employees exclusive of teachers will come under this plan as new entrants take the place of present employees. Ultimately when this time comes and when the accrued liability is liquidated the plan will be supported at an outlay of only 2.07 per cent. of the payroll of State employees and this will represent the entire obligation of the State for pensions, exclusive of the appropriation for State teachers.

While the Board recommends that if possible the full appropriation be made by the State from the date of establishment of the system, the State might establish the system on the basis of a lower appropriation for the first two years. It would be better to do this than to delay the establishment of the system because as soon as the system is established, the employees will start paying for their share of the benefits and the benefits to be provided by the State on account of current service will be cut approximately fifty per cent.

If the system is established on this basis, and the State does not desire to continue its contributions at the end of the two year period, the employees' contributions may then be discontinued. At that time the State may continue on a non-contributory basis and will not be any worse off than if it had not attempted to establish a jointly contributory system.

BASIS FOR RECOMMENDATIONS OF BOARD

Before reaching a decision in regard to the type of retirement system and the detailed form of the benefits to recommend for State employees, the Board considered the various types of retirement plans in the State and in operation for governmental employees outside the State. Below are given some of the reasons leading to the final recommendations of the Board.

Reserve Basis Recommended Rather Than Cash Disbursement Basis

The Board of Trustees made a special study of the two retirement laws covering the largest groups of employees of the State, namely, Chapter 489 of the Acts of 1937 and the teachers' retirement act. These acts provide two contrasting plans of financing. Chapter 489 represents the older type of plan under which employees make no contributions and the employer contributes the entire cost but provides currently only the payments needed to meet the pensions payable each year. In other words, no reserves are established in advance of the maturity of the pension payments. On the other hand, the teachers' plan is supported by the joint contributions of the State and teachers, and reserves are accumulated during the active service of teachers so that when they retire, the money is available for their pensions.

The Board at the outset considered the advisability of continuing the type of plan provided under Chapter 489 because it seemed very simple to operate and apparently required comparatively small appropriations. However, upon analysis the Board decided that this viewpoint might prove shortsighted.

In the first place the cost of benefits under Chapter 489 is provided on the so-called "cash disbursement" basis. This means that no provision is made in advance for the payment of pensions that will become due in the future. The State simply appropriates each biennium enough to meet the pension payrolls for the biennium. In any pension fund the pension roll in the early years of the operation of the fund is small in comparison with the ultimate roll because the immediate pension roll consists of the survivors of a group in service many years ago, when presumably the number of employees was much smaller than it is at present. For example, it is fair to assume that persons now retiring from the State service entered the State service possibly from thirty to forty years ago. At that time there were not so many State employees and those who have survived from the group in service at that time and who have now retired are smaller in number than those who will retire some thirty or forty years hence and who will be the survivors of the present larger group. Therefore, if only the present outlay required under Chapter 489 is taken as a measure of its ultimate cost, the figures are misleading because it is fair to suppose that the ultimate pension roll will represent a very much larger amount.

The Board of Trustees had some figures prepared to illustrate this point. At the present time the pension roll under Chapter 489 of the Acts of 1937 represents 0.43 per cent. of the active payroll of State employees. An actuarial computation has been prepared which shows that if the State continues the plan and makes no provision for current accruing pension obligations the annual appropriation will increase to 7.21 per cent. of the active payroll. Therefore the present low cost of Chapter 489 was felt by the Board not to be a good criterion by which to judge the future operation of a plan similar to Chapter 489. The State would have to look forward to an increasing cost on account of pensions for State employees if this plan should be adopted.

Under the teachers' retirement system the appropriation is set on a reserve basis rather than on a cash disbursement basis. Each year the State makes a contribution of a percentage of the payroll. This contribution is sufficient to cover the current liability for pension payments for which the State is responsible. The contributions not required for benefit payments are set aside in a reserve fund and invested. When the pension rolls increase beyond the amount of the appropriation, no increase will be required in the State's appropriation because the money will be available from the reserves to meet the increased pension rolls.

Over a period of years the State will not have to contribute as much to a system on a reserve basis as to a system on a cash disbursement basis because the interest charges on the contributions collected in advance go to reduce the amounts required to be paid by the State.

The statement was made above that under Chapter 489 the disbursements will increase from the present rate of 0.43 per cent. of payroll to 7.21 per cent. of payroll. This is taking into account only the normal cost of the plan. On the other hand, if the State operated the plan on a reserve basis the annual cost would eventually be 2.10 per cent. of payroll, as compared with the estimated ultimate cost of 7.21 per cent. under the cash disbursement basis.

The Board of Trustees found that the cash disbursement plan of financing exemplified by the plan set up by Chapter 489 has been discarded by many of the states and cities because it has not proved satisfactory over a period of years. Under the old cash disbursement funds, the usual course has been that the appropriations have increased year by year until they have become a burden to the taxpayers. Then either the taxpayers have had to continue to meet obligtions which they would not have assumed if they had known in advance what the cost of the benefits was to be, or they have had to make drastic reductions in benefits, which course has caused disappointment and hardship among employees. Therefore, from the viewpoint of both the taxpayers and employees, the Board of Trustees believes that a plan operated on a reserve basis will prove more satisfactory than the continuation of a plan like the existing cash disbursement plan.

The saving that will result to the State if it adopts the proposed system and operates it on a reserve basis instead of continuing the existing system on a cash disbursement basis, may be illustrated by comparing the difference in cost to the State in the two systems as they would be after approximately thirty years of operation when the accrued liability would have been liquidated under the jointly contributory plan. At that time the cost of either system to the State would have reached a point where disbursements would be expected to be constant, if no increase is made in the annual payroll. At that time the annual costs to the State under the two plans, based on the payrolls of the prospective membership of the new system would compare as follows:

TABLE 4

COMPARATIVE ULTIMATE COSTS TO STATE OF EXISTING PLAN AND PROPOSED JOINTLY CONTRIBUTORY PLAN

Item	Contribution As Percentage Of Payroll	Amount Based On Present Payroll
Ultimate cost of benefits under Chapter 489	7.21%	$ 498,952
Normal cost of proposed jointly contributory plan	2.07	143,250
Savings if proposed jointly contributory plan adopted	5.14%	$ 355,702

The foregoing table shows that ultimately the adoption of the new plan would result in an annual saving to the State of approximately $355,702 per annum. This saving which would come about through the use of the reserve basis for the State's contribution is a strong argument in favor of adopting this basis for the proposed system.

Jointly Contributory Basis

The Board of Trustees recommends that a jointly contributory system or a system supported by the joint contributions of the employees and the public be adopted for State employees rather than a system supported entirely by employees. In this respect therefore the Board again favors a plan like the Maryland teachers' plan rather than a plan like that provided by Chapter 489 of the Acts of 1937. Jointly contributory plans have been favored by the commissions in New York City, New York State, California, Connecticut, New Jersey and in other states where special attention has been given in recent years to the development of sound governmental retirement plans.

The Board found that at the outset it could recommend a more liberal retirement plan if employees share in the cost. The normal cost of the plan of benefits under Chapter 489 of the Acts of 1937 is 2.10 per cent. of payroll whereas the proposed plan permitting retirement at a minimum retirement age of 65 rather than 70, providing a larger accidental disability benefit than provided by Chapter 489, and including a death benefit, would cost the State normally only 2.07 per cent. of the payroll.

There were also considerations other than those of cost which influenced the Board in its final decision. As shown by the tabulation on page 11 of this report the State has precedent for either type of plan. However, practically all of the recently adopted sound governmental retirement systems are on a jointly contributory basis. Industrial plans and bank plans are tending more and more to adopt the jointly contributory method. The States of New

York, Rhode Island, New Jersey and Pennsylvania are among the states which are operating sound retirement systems for their employees on a jointly contributory basis. The United States Government Civil Service Retirement and Disability Fund is operating on this basis as are the sound city systems of Baltimore, Boston, Providence, New York City, St. Louis, San Diego and San Francisco and the state-wide teachers' systems operating in Maryland as well as in Louisiana, Pennsylvania, Ohio, Connecticut, Massachusetts, New York and New Jersey. It seemed to the Board, therefore, there were more precedents for a jointly contributory plan than for a non-contributory plan.

The respective advantages and disadvantages of the two types of plan have been widely discussed and investigated. One viewpoint is that there is but a slight economic difference in the two types of plan after they have operated for a number of years. If the State or other employer provides the entire cost, the compensation may be considered as having been increased by the present value of the deferred benefits or by the amount of the contribution which is required of the employer to provide the benefit but presumably after the system has been established, the value of the retirement benefits will be taken into consideration in fixing salary increases and in determining the salaries of new employees. If the employees and employer share the cost, salaries ultimately are adjusted so that after a comparatively short time the value to the employee and the cost to the employer of the actual cash compensation plus the cost of the retirement benefits become substantially the same whichever type of plan is used.

However, at the outset, the establishment of a non-contributory plan increases the actual compensation of the employee if no adjustment is made in salary. Inasmuch as at the outset the jointly contributory plan does not increase the employer's first cost as much as the non-contributory plan it has been much favored. Furthermore, it tends to promote cooperation between employee and employer through their mutual interest in the finances of the system. Also employees are apt to regard the benefits more highly when they contribute towards their support.

On the basis of the foregoing considerations the Board recommends that the new system for State employees be operated on a jointly contributory basis.

Form Of Benefits Recommended

The following points in regard to the benefits may be of interest.

SERVICE BENEFIT

The service benefit is the most important of the benefits in the retirement system. This is the benefit on which the majority of employees will retire. Under the proposed plan *any employee reaching age 65 may retire upon his own request.* The amount of retirement allowance consists of two parts: the annuity, which the amount of contributions which the employee has to his credit will provide, and the pension, which is provided by the State.

Under the proposed plan each employee contributes a percentage of his salary which is computed to provide an annuity of 1/140 of his average final compensation for each year of membership. At retirement the State provides a pension equal to 1/140 of the average final compensation of the member for each year of membership service and in addition a pension on account of prior service equal to 1/70 of his average final compensation for each year of creditable prior service.

The Board considered other proportions of average final compensation for each year of service such as 1/60 and 1/80. It selected the 1/70 rate of allowance as the one for which the cost would be reasonable for employees and the State and which would make the rate of allowance uniform with that provided under the teachers' retirement system and under the Baltimore municipal system.

The Board also considered the cost of permitting service retirement at an earlier retirement age than 65. While the teachers have a minimum retirement age of 60 and the municipal system in Baltimore provides a minimum retirement age of 60, the Board finally decided to use a retirement age of 65. The cost was less than would be the cost for a minimum retirement age of 60. At the present time State employees covered by Chapter 489 have to remain in service to age 70 unless they are disabled. Therefore the proposd plan is more liberal than the existing retirement plan. As stated above, it could be made more liberal without increasing the cost of the plan over that provided by Chapter 489 of the Acts of 1937 because of the fact that employees are sharing in the cost of the benefit whereas under Chapter 489 the entire cost is assumed by the State.

The use of the average annual compensation of the last ten years of service is a rather usual provision, as it gives a stable final salary basis for determining the amount of allowance and at the same time bases the allowance on the employee's average income and standard of living at retirement. The teachers' retirement system bases the retirement allowance upon the average annual salary of the last ten years of service as does the Baltimore municipal system. The retirement systems for state employees in New York and in New Jersey use the average of the last five years.

The plan provides that retirement be made compulsory at age 70, except in the case of elected officials and employees appointed by the Governor. A compulsory retirement provision is usually considered desirable from the standpoint of the employer, because the service then will be relieved automatically of employees who have reached such an advanced age that in general they are no longer able to give efficient service.

DISABILITY BENEFIT

Since the employees covered under Chapter 489 of the Acts of 1937 now have disability protection and since the State provides disability benefits in the teachers' system, the Board recommends that a disability provision be included under the new system. A distinction is made between the cases of permanent disability that occur as the result of an accident in the performance of duty and those due to ordinary causes for which the State is not directly responsible.

DISABILITY DUE TO ORDINARY CAUSES

Disability from ordinary causes does not present a claim on the public purse to the same extent as does disability from accident in the performance of duty. Ordinary disability is sometimes regarded as a contingency against which an employee may be expected to guard himself and the responsibility of the employer is probably discharged when he insures the employee against contingencies for which the employer is responsible, that is to say, disability resulting from accident occurring in the actual performance of duty. However, the Board found that there is an advantage to the State in being able to relieve the service of a disabled employee without the necessity of leaving him with little or no income. Furthermore, the cost of the service benefit would probably be higher without a provision for ordinary disability retirement so that the net increase in cost due to the addition of the ordinary disability benefit was not heavy. From the standpoint of the members an ordinary disability benefit appears highly desirable, because disability, whether from an accident in the performance of duty or from other causes, is probably the danger which is viewed with the greatest concern by the members and the one against which they ordinarily find the most difficulty in protecting themselves.

The proposed system requires of the member the completion of ten years of service in order to be eligible for the ordinary disability benefit. The service limitation somewhat reduces the cost to the State and protects the system against an adverse selection due to the possible attempt of partially disabled persons to enter the State service with the expectation of being provided with disability allowances shortly after their entry. The same service requirement appears under Chapter 489 of the Acts of 1937 and in the plans of New York City, St. Louis, San Francisco, Providence and Hawaii. In the Baltimore system and the State teachers' system only five years of service are required as a condition for eligibility for disability retirement. In the Boston municipal system and in the New York State Employees' Retirement System the limitation is fifteen years.

Both members and the State share in the cost of the ordinary disability benefit. When a member is disabled, the total contributions standing to his credit are used to provide part of the allowance and the State provides the balance. The total disability retirement allowance is figured at 9/10 of the rate of allowance provided for service retirement. A minimum allowance of 25 per cent. of average final compensation has been included because if a member is disabled after a short period of service, as for example, after exactly ten years of service, his allowance figured at nine-tenths of the rate of allowance for service retirement would be very small. For example, a member disabled after exactly ten years of service would be entitled to an allowance of less than 13 per cent. of average final compensation if no minimum should be included. Ordinarily a man disabled early in life requires as much assistance as a man disabled thereafter, and inasmuch as his benefit would be very low if figured at the rate of nine-tenths of one-seventieth for each year of service, the Board of Trustees has included a minimum allowance.

In providing a minimum of this kind, the Board follows the precedent set by the Baltimore City retirement plan and the State teachers' plan.

The proposed system provides that no member shall receive on disability retirement more than nine-tenths of the rate of allowance which he would have received on service retirement. Therefore in the case of late entrants into the service the 25 per cent. minimum does not apply. In their case the minimum equals nine-tenths of the rate of allowance set for service retirement multiplied by the number of years of service which they would have had at the minimum retirement age.

The amount of the ordinary disability allowance is figured at nine-tenths of the proportion allowable at service retirement for each year of service rather than the exact proportion allowable at service retirement so that it will be slightly lower than the benefit payable at the minimum retirement age for the same period of service. The Board found that this is usually considered desirable as it furnishes an incentive for members who have nearly reached the service retirement age to remain in service to that age.

DISABILITY DUE TO ACCIDENTAL CAUSES

In the case of total and permanent disability due to an accident in the performance of duty, the Board believes that a pension should always be payable regardless of the age or length of service of the member. The workmen's compensation laws and the courts of many States tend to place the total liability for disability resulting from the actual performance of duty on the employer.

The Board set the amount of pension at 66 2/3 per cent. of the average final compensation of the member and in addition, because of the savings bank basis upon which the employees' rates are calculated, it has provided that the member's contributions are to be returned on accidental disability in the form of an annuity. The provision proposed for accidental disability is very similar to the provision found in the majority of sound municipal systems including the Baltimore city system.

DEATH BENEFIT

Although it is not necessary to include any death benefit in a retirement plan from the standpoint of the efficiency of the service, a small amount of insurance payable to the dependents or estates of employees dying before reaching the retirement age makes the plan of more value to the employees. The plan provides for a lump sum payment of 50 per cent. of the average final compensation to an employee who dies after one year of service. This benefit is similar to the one provided in the State teachers' system and in the Baltimore city system. The retirement plan for State employees in New York also provides a benefit of this type, while New Jersey does not include such a benefit. It is a benefit which has proved to be popular, especially with the young employees who do not expect to remain in service to the retirement age.

BENEFITS PAYABLE UPON DEATH OF BENEFICIARIES

The plan does not provide for any benefit at the expense of the State to be paid in case of death after retirement. It does provide, however, that any employee at the time of retirement may elect to provide for his dependents by taking a lesser retirement allowance and providing that some payment shall be made upon his death. There are three options proposed.

Under Option 1 the member may take a lesser annuity, and if at his death after retirement he has not received in his annuity payments an aggregate amount equal to the value of his accumulated contributions at the time of retirement, the excess of the value of his accumulated contributions over the amounts received in his annuity payments will be paid to his estate or beneficiary.

Option 2 provides that the member may take a lesser retirement allowance upon his death the lesser retirement allowance will be continued to the beneficiary he designated at the time of his retirement, while Option 3 provides that he may take a lesser retirement allowance and at his death one-half of his lesser retirement allowance will be payable to his beneficiary.

SPECIAL PROVISION FOR PRESENT EMPLOYEES

The plan makes special provision for present employees on account of service rendered prior to the establishment of the retirement system. It proposes that the State make additional or accrued liability contributions for these employees so that they will receive approximately the same benefits that they would have received had the retirement system been in operation at the time when they entered the service of the State.

The Board of Trustees found that, as a general rule, in the sound retirement plans in operation provision is made so far as possible to place present employees in the same position in which they would have been, had the system been in operation when they first entered the service. Full prior service credit on this basis is provided under the Maryland teachers' retirement system and the Baltimore city system.

ILLUSTRATIONS OF BENEFITS

In order to illustrate the benefits which would be payable under the proposed plan, a number of specific cases have been listed below.

Case I: An employee now in service whose age is 65 and whose total creditable prior service is 35 years and whose salary has averaged about $1,800 during the last 10 years of service.

This employee will be eligible to retire immediately. The proposed plan provides that in the case of employees now in service, pensions at service retirement will be allowed equal to 1/70 of average final compensation for each year of creditable prior service. Therefore in the case described the employee will be entitled to an allowance of 1/70x$1,800x35, or $900 per annum for the remainder of his lifetime.

Case II: A woman clerk now in service whose age is 45 and whose creditable prior service is 20 years.

This employee will be eligible to retire upon reaching age 65. We may assume that at that time her average final compensation will be $1,500. Her retirement allowance at age 65 will consist of three parts as follows:

(1) An annuity on account of the contributions that she will have made during her period of membership service from age 45 to age 65. If, for example, they amount to $2,152.66 they would provide an annuity of $2,152.66 divided by 10.046 or	$214.28
(2) She will receive a pension on account of her 20 years of membership service equal to her annuity	214.28
(3) In addition, she will receive a pension on account of her prior service, or 1/70 of average final compensation for each year of creditable prior service. The pension on account of prior service would be 1/70x$1,500x20, or	428.57
Total Allowance	$857.13

Case III: A man laborer now in service whose age is 35 and who has had 10 years of service. We may assume that he joins the system and begins contributing thereunder and that at age 55 he becomes disabled. His contributions with interest might amount to $872.67 at age 55, and his average final compensation might, for example, be $900.

The total allowance of this employee would amount to 9/10 of 1/70 of $900 for each of his thirty years of service, or $347.14. The allowance would consist of the annuity that his contributions at age 55 would provide, or $102.28, plus a pension which would make up the difference between the total allowance due him and the amount provided by his contributions, that is, $347.14 minus $102.58, which is $244.86.

This allowance takes into account his prior service of 10 years and assumes normal salary increases to age 55.

Case IV: We may take the case of an employee age 50 who has become permanently disabled due to an accident in the performance of his duty. If his average final compensation is $1,200, he would be entitled to a pension of 66 2/3 per cent. of $1,200 or $800 per annum. In addition, any contribution which he had made to the retirement system would be returned to him as an annuity.

Case V: We may take the case of a member who dies on account of ordinary causes, who has been in service three or more years and whose salary for the year preceding his death was $1,100. His beneficiary will be entitled to a lump sum payment of 50 per cent. of $1,100 or $550. In addition a lump sum benefit of his accumulated contributions will be payable.

Case VI: A man clerk is age 65 and entitled to a regular service retirement allowance of $1,000 per annum. He wishes to provide for his wife in case he dies before she does. He, therefore, considers the three optional benefits, any one of which he might select instead of his regular retirement allowance.

He first considers Option 1. In this case, instead of receiving $1,000 per annum, of which $500 might be the annuity on account of his own contributions and $500 is the pension provided by the State, he would receive $873.20 per annum of which $373.20 would be provided by his own contributions and $500 would be his pension. In case he died before receiving in annuity payments a total amount equal to $4,402.00 (the amount of his accumulated contributions at retirement), the balance of this amount over the total amount received by him in annuity payments, would be paid to his estate. If he elected Option 1 and died after three years, he would have received $1,119.60 in annuity payments, so that $4,402.00 minus $1,119.60 or $3,282.40, would be payable to his estate or beneficiary.

Instead of electing Option 1, he might wish to have his retirement allowance continued to his wife at his death under the provisions either of Option 2 or of Option 3. The amount which would be payable under these options would depend on his wife's age as well as on his age. If his wife is also age 65, he would receive $690 per annum under Option 2, instead of his full allowance of $1,000 per annum, and if his wife survived him $690 per annum would be payable to her so long as she lived after his death. If he selected Option 3, $816.50 per annum would be payable to him during his lifetime and one half of this amount, or $408.25 would be payable each year to his wife so long as she survived him.

The Board of Trustees hopes that its proposal may prove acceptable. It believes that the adoption of a retirement system along the lines proposed will be a forward step for the State to take both as a means of protecting the service against inefficiency caused by superannuation and disability and as a means of protection for the individual employees.

APPENDIX I

Actuarial Basis Employed In Preparation Of Cost Figures

Prepared by
George B. Buck
Consulting Actuary

ACTUARIAL BASIS EMPLOYED IN PREPARATION OF COST FIGURES

This section of the report presents the actuarial basis employed in the preparation of the estimate of the probable cost of the proposed retirement system for employees in the State of Maryland. To estimate exactly the total cost of the plan is impossible at this time due to the fact that the number of employees who will be covered by the plan cannot be ascertained until the employees are given the privilege to elect whether they will join the system. This estimate, however, is offered as the best indication of the probable maximum cost of the plan to the public, that could be prepared with the data now available. Because it tends to indicate the maximum cost, if all present employees now covered by Chapter 489 of the Acts of 1937 elect to join, it furnishes a very conservative estimate of the cost of the proposed plan.

Data Used As Basis For Cost Estimate

A summary of the main benefit and contribution provisions of the plan has been presented on pages 15 to 19 of the report. The contributions of the public required to provide any group of employees with the proposed benefits depend upon the number of employees who will remain in the service of the State long enough to receive the benefits under the system and upon the length of time they will live after retirement to enjoy their benefits. A measurement of the liabilities of the public, therefore, depends upon a measurement of the future rates of withdrawal, death, disability, service retirement and salary increase among the members of the system. The best basis for obtaining a measurement of these rates would be obtained by an analysis of their operation in the past. However, the records of the past experience of the employees in the State were not available in the proper form to be of use for this purpose and therefore the actuary for the most part had to base his estimate on the service and mortality experience of the other groups of employees. The proposed retirement act will provide for periodic checking of the rates of separation of members and the mortality of retired members. Proper records will be installed, periodic actuarial investigations will be undertaken, and any necessary financial adjustments in the system made. Therefore, if the system is established on a conservative basis at the outset, no risk is taken in basing it upon the experience of the other groups of employees.

As a guide in selecting the rates to be used in the calculations, the actuary had available data showing the rates obtaining among employees in a number of State-wide retirement systems, including New York and New Jersey. Similar data covering employees in a number of municipal plans, including Baltimore, Providence and Cincinnati, were available. Final decision was reached to use the service and mortality tables adopted by the Board of Trustees of the Employees' Retirement System of the City of Baltimore for use in valuing the benefits to members of that system belonging to the clerical and administrative and laboring branches of the city service. It is believed that in view of the fact that the actual experience of the Maryland employees was not available on which to base the rates, the rates applicable to Baltimore employees would be the most suitable for use.

APPENDIX II

Text Of Proposed Legislative Act

A BILL

ENTITLED

AN ACT TO AMEND ARTICLE 73B OF THE ANNOTATED CODE OF MARYLAND, TITLE "PENSIONS," BY REPEALING THE PROVISIONS THEREOF AND ENACTING IN LIEU THEREOF 15 NEW SECTIONS PROVIDING FOR THE FUTURE OPERATION OF THE RETIREMENT SYSTEM FOR STATE EMPLOYEES ON A JOINTLY-CONTRIBUTORY BASIS.

Section 1. Be it enacted by the General Assembly of Maryland, that Sections 1 to 4 of Article 73B of the Annotated Code of Maryland, title "Pensions," be and they are hereby repealed, and that 15 new sections under said Article 73B be and they are hereby enacted to read as follows:

ARTICLE 73B

PENSIONS

1. Definitions

The following words and phrases as used in this Article, unless a different meaning is plainly required by the context, shall have the following meanings:

(1) "Retirement system" shall mean the Employees' Retirement System of the State of Maryland, as defined in Section 2 of this Article.

(2) "Department" shall mean any agency of the State Government receiving State appropriations and employing persons who are, or who are entitled to become, members of the retirement system.

(3) "Employee" shall mean any regular classified or unclassified officer or employee of the State for whom compensation is provided for by State appropriation. The term "employee" shall include any appointed or elected employee of the State and any clerk of courts and register of wills who comes within the provisions of Sections 75 to 78 inclusive of Article 17 of the Annotated Code. It shall exclude any person who is a member of or eligible to membership in the Teachers' Retirement System of the State of Maryland and any class of employees whose compensation is only partly paid by the State or who are serving on a temporary or other than per annum basis. In all cases of doubt, the Board of Trustees, provided for in Section 6 of this Article, shall determine whether any person is an employee as defined in this Article.

(4) "Member" shall mean any employee included in the membership of the retirement system as provided in Section 3 of this Article.

(5) "Board of Trustees" shall mean the board provided for in Section 6 of this Article to administer the retirement system.

(6) Medical Board" shall mean the board of physicians provided for in Section 6 of this Article.

(7) "Service" shall mean service as employee paid for by the State.

(8) "Prior service" shall mean service rendered prior to the date of establishment of the retirement system for which credit is allowable under Section 4 of this Article.

(9) "Membership service" shall mean service as an employee rendered while a member of the retirement system.

(10) "Creditable service" shall mean prior service plus membership service, for which credit is allowable as provided in Section 4 of this Article.

(11) "Beneficiary" shall mean any person in receipt of a pension, an annuity, a retirement allowance, or other benefit as provided by this Article.

(12) "Regular interest" shall mean interest at such rate as may be set from time to time by the Board of Trustees in accordance with Section 7, Subsection (2), of this Article.

(13) "Accumulated contributions" shall mean the sum of all the amounts deducted from the compensation of a member and credited to his individual account in the Annuity Savings Fund, together with regular interest thereon, as provided in Section 8 of this Article.

(14) "Earnable compensation" shall mean the full rate of compensation that would be payable to an employee if he worked the full normal working time for his position. In cases where compensation includes maintenance, the Board of Trustees shall fix the value of that part of the compensation not paid in money.

(15) "Average final compensation" shall mean the average annual earnable compensation of an employee during his last ten years of service as an employee, or if he had less than ten years of service, then his average earnable compensation for his total service.

(16) "Annuity" shall mean payments for life derived from the accumulated contributions of a member. All annuities shall be payable in equal monthly instalments.

(17) "Pension" shall mean payments for life derived from money provided by the State. All pensions shall be payable in equal monthly instalments.

(18) "Retirement allowance" shall mean the sum of the annuity and the pension, or any optional benefit payable in lieu thereof.

(19) "Retirement" shall mean withdrawal from active service with a retirement allowance granted under the provisions of this Article.

(20) "Annuity reserve" shall mean the present value of all payments to be made on account of any annuity, or benefit in lieu of any annuity,

computed upon the basis of such mortality tables as shall be adopted by the Board of Trustees, and regular interest.

(21) "Pension reserve" shall mean the present value of all payments to be made on account of any pension, or benefit in lieu of any pension, computed upon the basis of such mortality tables as shall be adopted by the Board of Trustees, and regular interest.

(22) "Actuarial equivalent" shall mean a benefit of equal value when computed upon the basis of such mortality tables as shall be adopted by the Board of Trustees, and regular interest.

(23) The masculine pronoun, wherever used, shall include the feminine pronoun.

2. Name and Date of Establishment

A retirement system is hereby established and placed under the management of the Board of Trustees for the purpose of providing retirement allowances and other benefits under the provisions of this Article for employees of the State of Maryland. The retirement system so created shall be established as of October first, nineteen hundred and thirty-nine. It shall have the powers and privileges of a corporation, and shall be known as the "Employees' Retirement System of the State of Maryland," and by such name all of its business shall be transacted, all of its funds invested, and all of its cash and securities and other property held in trust for the purpose for which received.

3. Membership

The membership of the retirement system shall consist of the following:

(1) Any person who shall become an employee after the date of establishment shall become a member of the retirement system as a condition of employment, and shall not be entitled to receive any pension or retirement allowance from any other pension or retirement system supported wholly or in part by the State of Maryland, anything to the contrary notwithstanding.

(2) Any person who is an employee on the date of establishment, except any person specifically excluded under Subsection (3) of this section, shall become a member as of that date, unless within a period of thirty days next following such employee shall file with the Board of Trustees on a form prescribed by the Board a notice of his election not to be covered in the membership of the system and a duly executed waiver of all present and prospective benefits which would otherwise inure to him on account of his participation in the retirement system.

(3) Persons who are employees on the date of establishment and who are covered by any existing law providing for the retirement of employees wholly or in part at the expense of the State, shall be entitled to membership in this retirement system, and may become members by filing with the Board of Trustees on a form prescribed by the Board a duly executed waiver of all benefits which might inure to them under the provisions of the laws under which they are covered.

(4) Any employee who elects under Subsection (2) of this section not to become a member, may thereafter apply for and be admitted to membership; but no such employee shall receive prior service credit unless he becomes a member within the first year following the date of establishment.

(5) Notwithstanding anything to the contrary in this act, membership in the retirement system shall be optional with any class of elected officials, or with any class of officials appointed for fixed terms.

(6) Should any member in any period of six consecutive years after last becoming a member be absent from service more than two years, or should he withdraw all or any part of his accumulated contributions, or should he become a beneficiary or die, he shall thereupon cease to be a member.

(7) It shall be the duty of the head of each department to submit to the Board of Trustees a statement showing the name, title, compensation, duties, date of birth, and length of service of each member and such information regarding other employees in his department as the Board of Trustees may require. The Board of Trustees shall then place each member in one of the following groups:

Group 1. Clerical, administrative, professional and technical workers engaged in duties requiring principally mental exertion.

Group 2. Laborers, mechanics and other workers engaged in duties requiring principally physical exertion.

Any other group of not less than two hundred and fifty persons which may be hereafter recommended by the actuary on the basis of service and mortality experience and approved by the Board of Trustees, to cover all or part of any group or groups previously created or any additional classes of employees.

4. Creditable Service

(1) Under such rules and regulations as the Board of Trustees shall adopt each member who was an employee at any time during the year immediately preceding the date of establishment and who becomes a member during the first year after the date of establishment, shall file a detailed statement of all service as an employee rendered by him prior to the date of establishment for which he claims credit.

(2) The Board of Trustees shall fix and determine by appropriate rules and regulations how much service in any year is equivalent to one year of service, but in no case shall it allow credit for a period of absence without pay of more than a month's duration nor shall more than one year of service be creditable for all service in one calendar year. Service rendered for the full normal working time in any year shall be equivalent to one year's service.

(3) Subject to the above restrictions and to such other rules and regulations as the Board of Trustees may adopt, the Board of Trustees shall verify, as soon as practicable after the filing of such statements of service, the service therein claimed.

(4) Upon verification of the statements of service the Board of Trustees shall issue prior service certificates certifying to each member the length of service rendered prior to the date of the establishment of the retirement system, with which he is credited on the basis of his statement of service. So long as membership continues a prior service certificate shall be final and conclusive for retirement purposes as to such service, provided, however, that any member may, within one year from the date of issuance or modification of such certificate, request the Board of Trustees to modify or correct his prior service certificate.

When membership ceases such prior service certificate shall become void. Should the employee again become a member, such employee shall enter the system as an employee not entitled to prior service credit.

(5) Creditable service at retirement on which the retirement allowance of a member shall be based shall consist of the membership service rendered by him since he last became a member, and also, if he has a prior service certificate which is in full force and effect, the period of the service certified on his prior service certificate.

5. **Benefits**

Service Retirement Benefit

(1) (a) Any member in service may retire upon written application to the Board of Trustees setting forth at what time, not less than thirty days nor more than ninety days subsequent to the execution and filing thereof, he desires to be retired, provided that such member at the time so specified for his retirement shall have attained the age of sixty-five and notwithstanding that during such period of notification he may have separated from service.

(b) Any member in service who is not an elected or appointed official of the State and who has attained the age of seventy shall be retired forthwith or on the first day of the next calendar month.

Allowance for Service Retirement

(2) Upon retirement for service a member shall receive a service retirement allowance which shall consist of:

(a) An annuity which shall be the actuarial equivalent of his accumulated contributions at the time of retirement;

(b) A pension which shall be equal to one one-hundred and fortieth of his average final compensation multiplied by the number of years of his service since he last became a member; and

(c) If he has a prior service certificate in full force and effect, an additional pension which shall be equal to one-seventieth of his average final compensation multiplied by the number of years of service certified on his prior service certificate.

Ordinary Disability Retirement Benefit

(3) Upon the application of a member in service or of his department head, any member who has had ten or more years of creditable service may be retired by the Board of Trustees, not less than thirty and not more than ninety days next following the date of filing such application, on an ordinary disability retirement allowance, provided that the Medical Board, after a medical examination of such member, shall certify that such member is mentally or physically incapacitated for the further performance of duty, that such incapacity is likely to be permanent, and that such member should be retired.

Allowance on Ordinary Disability Retirement

(4) Upon retirement for ordinary disability a member shall receive a service retirement allowance if he has attained the age of 65, otherwise he shall receive an ordinary disability retirement which shall consist of:

(a) An annuity which shall be the actuarial equivalent of his accumulated contributions at the time of retirement; and

(b) A pension which, together with his annuity, shall provide a total retirement allowance equal to ninety per centum of one-seventieth of his average final compensation multiplied by the number of years of his creditable service, if such retirement allowance exceeds one-quarter of his average final compensation; otherwise a pension which, together with his annuity, shall provide a total retirement allowance equal to one-quarter of his average final compensation, provided, however, that no such allowance shall exceed ninety per centum of one-seventieth of his average final compensation multiplied by the number of years which would be creditable to him were his service to continue until the attainment of age 65.

Accidental Disability Benefit

(5) Upon the application of a member in service, or of the head of his department, any member who has been totally and permanently incapacitated for duty as the natural and proximate result of an accident occurring while in the actual performance of duty at some definite time and place, without wilful negligence on his part, shall be retired by the Board of Trustees, provided that the medical board shall certify that such member is mentally or physically incapacitated for the further performance of duty, that such incapacity is likely to be permanent, and that such member should be retired. No beneficiary entitled to an accidental disability retirement allowance shall receive any allowance on account of ordinary disability.

Allowance on Accidental Disability Retirement

(6) Upon retirement for accidental disability a member shall receive a service retirement allowance if he has attained the age of 65; otherwise he shall receive an accidental disability retirement allowance which shall consist of:

(a) An annuity which shall be the actuarial equivalent of his accumulated contributions at the time of his retirement; and

(b) A pension of sixty-six and two-thirds per centum of his average final compensation, but in no event shall his total accidental disability retirement allowance exceed his average final compensation.

Re-Examination of Beneficiaries Retired on Account of Disability

(7) Once each year during the first five years following the retirement of a member on a disability retirement allowance, and once in every three-year period thereafter, the Board of Trustees may, and upon his application shall, require any disability beneficiary who has not yet attained the age of 65 to undergo a medical examination, such examination to be made at the place of residence of such beneficiary or other place mutually agreed upon, by a physician or physicians designated by the Board of Trustees. Should any disability beneficiary who has not yet attained the age of 65 refuse to submit to such medical examination, his allowance may be discontinued until his withdrawal of such refusal, and should his refusal continue for one year, all his rights in and to his pension may be revoked by the Board of Trustees.

(a) Should the Medical Board report and certify to the Board of Trustees that any disability beneficiary is engaged in or is able to engage in a gainful occupation paying more than the difference between his retirement allowance and his average final compensation, and should the Board of Trustees concur in such report, then the amount of his pension shall be reduced to an amount which, together with his annuity and the amount earnable by him, shall equal the amount of his average final compensation. Should his earning capacity be later changed, the amount of his pension may be further modified; provided that the new pension shall not exceed the amount of the pension originally granted nor an amount which, when added to the amount earnable by the beneficiary together with his annuity, equals the amount of his average final compensation. A beneficiary restored to active service at a salary less than the average final compensation upon the basis of which he was retired shall not become a member of the retirement system until his salary is at least equal to such average final compensation. For the purposes of this paragraph, "retirement allowance" shall mean the allowance payable without optional modification as hereinafter provided in Subsection (10) of this section.

(b) Should a disability beneficiary under the age of 65 be restored to active service and should his annual compensation then or at any time prior to the age of 65 be equal to or greater than his average final compensation at retirement, his retirement allowance shall cease, he shall again become a member of the retirement system, and he shall contribute thereafter at the same rate he paid prior to disability. Anything in this Article to the contrary notwithstanding, any prior service certificate on the basis of which his service was computed at the time of his retirement shall be restored to full force and effect, and in addition, upon his subsequent retirement he shall be credited with all the service as a member creditable to him at the time of retirement; but should he be restored to membership after the attainment of the age of 55, his pension upon subsequent retirement shall not exceed the sum of the pension which he was receiving immediately prior to his last restoration to membership and the pension that may have accrued to him as a new member on account of service since his last restoration to membership, provided that the total pension on his subsequent retirement shall not exceed the rate per centum he would have received had he remained in service during the period of his prior retirement.

Death Benefit

(8) Upon the receipt of proper proofs of the death of a member in service there shall be paid to such person having an insurable interest in the life of the deceased, as he shall have nominated by written designation duly executed and filed with the Board of Trustees, otherwise to his estate:

(a) His accumulated contributions; and

(b) If the member has one or more years of creditable service, an amount equal to fifty per centum of his average final compensation.

Return of Accumulated Contributions

(9) Should a member cease to be an employee except by death or by retirement under the provisions of this Article, he shall be paid the amount of his accumulated contributions.

Optional Allowances

(10) In lieu of the disability or service allowances payable under the aforesaid provisions, any member may, prior to the first retirement allowance payment normally due, elect a retirement allowance of equivalent actuarial value in one of the optional forms set out below. The election of the option shall be made on a form provided for that purpose and shall be filed with the Board of Trustees. Should a member die prior to the expiration of thirty days after the date of the filing of such election or prior to thirty days after retirement, such election shall be void and of no effect, and the benefits payable on his account shall be the same as though his election had not been filed and he had died in active service. A member who has elected an optional benefit may change such election by due notice to the Board of Trustees, but no change may be made after the first payment of his allowance becomes normally due.

Option 1. If the member dies before he has received in annuity payments the present value of his annuity as it was at the time of his retirement, the balance shall be paid to such person, if any, as he shall nominate by written designation duly acknowledged and filed with the Board of Trustees, otherwise to his estate; or

Option 2. Upon his death, his reduced retirement allowance shall be continued throughout the life of and paid to such person as he shall nominate by written designation duly acknowledged and filed with the Board of Trustees at the time of his retirement; or

Option 3. Upon his death, one half of his reduced retirement allowance shall be continued throughout the life of and paid to such person as he shall nominate by written designation duly acknowledged and filed with the Board of Trustees at the time of his retirement; or

Option 4. Some other benefit or benefits shall be paid either to the member or to such person or persons as he shall nominate, provided such other benefit or benefits, together with the reduced retirement allowance, shall be certified by the actuary to be of equivalent actuarial value to his retirement allowance, and shall be approved by the Board of Trustees.

Pensions Offset by Compensation Benefits

(11) Any amounts which may be paid or payable by the State of Maryland under the provisions of any workmen's compensation or similar law to a member or to the dependents of a member on account of any disability shall be offset against and payable in lieu of any benefits payable out of funds provided by the State under the provisions of this Article on account of the same disability. In case the present value of the total commuted benefits under said workmen's compensation or similar law is less than the pension reserve on the benefits otherwise payable from funds provided by the State of Maryland under this Article, then the present value of the commuted payments shall be deducted from the pension reserve and such benefits as may be provided by the pension reserve so reduced shall be payable under the provisions of this Article.

6. Administration

Board of Trustees

(1) The general administration and responsibility for the proper operation of the retirement system and for making effective the provisions of this Article are hereby vested in a Board of Trustees which shall be organized immediately after three of the trustees provided for in this section have qualified and taken the oath of office.

(2) The Board shall consist of five trustees as follows:

(a) The State Budget Director, Ex-officio.

(b) The State Comptroller, Ex-officio.

(c) The State Employment Commissioner, Ex-officio.

(d) Two members of the retirement system, who shall be elected for terms of four years in the manner prescribed by the Board of Trustees, and one of whom shall be elected by and from the membership in the classified service and one of whom shall be elected by and from the membership not in the classified service; provided, however, that the two appointed members of the Board established under this Article before the adoption of this Act shall serve as members of the Board until the expiration of the terms for which they were appointed. No Board members shall be elected from the membership until the first term of the present appointed members has expired and at that time a representative of the classified service shall be elected. When the term of the second appointed member expires a representative of the members not in the classified service shall be elected.

(3) If a vacancy occurs in the office of a trustee, the vacancy shall be filled for the unexpired term in the same manner as the office was previously filled.

(4) The trustees shall serve without compensation, but they shall be reimbursed from the Expense Fund, provided under Section 8 of this Article, for all necessary expenses that they may incur through service on the Board.

(5) Each trustee shall, within ten days after his appointment or election, take an oath of office that so far as it devolves upon him he will diligently and honestly administer the affairs of the said Board, and that he will not knowingly violate or willingly permit to be violated any of the provisions of law applicable to the retirement system. Such oath shall be subscribed to by the member making it, and certified by the officer before whom it is taken, and immediately filed in the office of the Secretary of State.

(6) Each trustee shall be entitled to one vote in the Board. A majority of said Board shall constitute a quorum for the transaction of any business, the exercise of any power, or the performance of any duty authorized or imposed by this Article.

(7) Subject to the limitations of this Article, the Board of Trustees shall, from time to time, establish rules and regulations for the administration of the funds created by this Article and for the transaction of its business. The Board of Trustees shall have power to require any officer, board or commission of the State to furnish it, upon application and without cost, certified copies of any records or papers in their official custody, and to require the attendance of witnesses and the production of papers, under summons, subpoena or other process, before said Board when considered necessary for the proper administration and enforcement of this Article or of the regulations adopted pursuant thereto; and for this purpose the said Board, or any member thereof, shall have the right to administer oaths to such witnesses.

(8) The said Board may hold hearings when deemed necessary in the performance of its duty, the hearings to be governed by the rules and regulations of the Board, and the Board shall not be bound by technical rules of evidence.

(9) The Board of Trustees shall elect from its membership a chairman and by a majority vote of all its members shall appoint a secretary who may be, but need not be, one of its members. It shall engage such actuarial and other services as shall be required to transact the business of the retirement system. The compensations of all persons engaged by the Board of Trustees, and all other expenses of the Board necessary for the operation of the retirement system, shall be paid at such rates and in such amounts as the Board of Trustees shall approve, and in accordance with appropriations made by the General Assembly.

(10) The Board of Trustees shall keep in convenient form such data as shall be necessary for actuarial valuation of the various funds of the retirement system, and for checking the experience of the system.

(11) The Board of Trustees shall keep a record of all its proceedings, which shall be open to public inspection. It shall publish annually a report showing the fiscal transactions of the retirement system for the preceding fiscal year, the amount of the accumulated cash and securities of the system, and the last balance sheet showing the financial condition of the retirement system by means of an actuarial valuation of the assets and liabilities of the system.

Legal Adviser

(12) The Attorney General of the State shall be the legal adviser of the Board of Trustees.

Medical Board

(13) The Board of Trustees shall designate a Medical Board to be composed of three physicians not eligible to participate in the retirement system. If required, other physicians may be employed to report on special cases. The Medical Board shall arrange for and pass upon all medical examinations required under the provisions of this Article, shall investigate all essential statements and certificates by or on behalf of a member in connection with an application for disability retirement, and shall report in writing to the Board of Trustees its conclusions and recommendations upon all the matters referred to it.

Actuary

(14) The Board of Trustees shall designate an actuary who shall be the technical advisor of the Board of Trustees on matters regarding the operation of the funds created by the provisions of this Article, and shall perform such other duties as are required in connection therewith.

(15) Immediately after the establishment of the retirement system the actuary shall make such investigation of the mortality, service and compensation experience of the members of the system as he shall recommend and the Board of Trustees shall authorize, for the purpose of determining the proper mortality and service tables to be prepared and submitted to the Board of Trustees for adoption. Having regard to such investigation and recommendation the Board of Trustees shall adopt for the retirement system such mortality and service tables as shall be deemed necessary and certify the rates of contribution payable under the provisions of this article.

(16) In the year nineteen hundred and forty-three and at least once in each five-year period thereafter, the actuary shall make an actuarial investigation into the mortality, service and compensation experience of the members and beneficiaries of the retirement system, and shall make a valuation of the assets and liabilities of the funds of the system, and taking into account the result of such investigation and valuation, the Board of Trustees shall adopt for the retirement system such mortality, service and other tables as shall be deemed necessary and shall certify the rates of contribution payable under the provisions of this Article.

(17) On the basis of such tables as the Board of Trustees shall adopt, the actuary shall make an annual valuation of the assets and liabilities of the funds of the retirement system.

7. Management of Funds

(1) The Board of Trustees shall be the trustees of the several funds created by this Article as provided in Section 8 of this Article, and shall have full power to invest and reinvest such funds, subject to all the terms, conditions, limitations and restrictions imposed by the law of Maryland upon domestic life insurance companies in the making and disposing of their investments; and subject to like terms, conditions, limitations and restrictions, said trustees shall have full power to hold, purchase, sell, assign, transfer and dispose of any of the securities and investments in which any of the funds created herein shall have been invested, as well as the proceeds of said investments and any moneys belonging to said funds.

(2) The Board of Trustees annually shall allow regular interest on the mean amount for the preceding year in each of the funds with the exception of the Expense Fund. The amounts so allowed shall be due and payable to said funds, and shall be annually credited thereto by the Board of Trustees from interest and other earnings on the moneys of the retirement system. Any additional amount required to meet the interest on the funds of the retirement system shall be paid by the State, and any excess of earnings over such amount required shall be deductible from the amounts to be contributed by the State.

Regular interest shall mean such per centum rate to be compounded annually as shall be determined by the Board of Trustees to be equitable in its judgment, both to employees and taxpayers of the State, after taking into consideration the actual interest earnings of the system for the preceding years and of the probable earnings of the system to be made in the future. Such rate shall be limited to a minimum of three per centum and a maximum of four per centum, with the latter rate applicable during the first year after the date of establishment.

(3) The State Treasurer shall be the custodian of the several funds. All payments from said funds shall be made by him or by a Deputy Treasurer, only upon vouchers signed by two persons designated by the Board of Trustees. A duly attested copy of a resolution of the Board of Trustees designating such persons and bearing on its face specimen signatures of such persons shall be filed with the Treasurer as his authority for making payments upon such vouchers. No voucher shall be drawn unless it has previously been authorized by resolution of the Board of Trustees.

(4) For the purpose of meeting disbursements for pensions, annuities, and other payments, there may be kept available cash, not exceeding ten per centum of the total amount in the several funds of the retirement system, on deposit in one or more banks or trust companies in the State of Maryland, organized under the laws of the State of Maryland, or of the United States, provided that the sum on deposit in any one bank or trust company shall not exceed twenty-five per centum of the paid up capital and surplus of such bank or trust company.

(5) Except as otherwise herein provided, no trustee and no employee of the Board of Trustees shall have any direct interest in the gains or profits of any investment made by the Board of Trustees. No trustee or employee of the Board shall, directly or indirectly, for himself or as an agent, in any manner use the same except to make such current and necessary payments as are authorized by the Board of Trustees; nor shall any trustee or employee of the Board of Trustees become an endorser or surety, or in any manner an obliger, for moneys loaned to or borrowed from the Board of Trustees.

8. Method of Financing

All of the assets of the retirement system shall be credited, according to the purpose for which they are held, among five funds, namely, the Annuity Savings Fund, the Annuity Reserve Fund, the Pension Accumulation Fund, the Pension Reserve Fund, and the Expense Fund.

(1) Annuity Savings Fund

(a) The Annuity Savings Fund shall be a fund in which shall be accumulated contributions from the compensation of members to provide for their annuities. Upon the basis of such tables as the Board of Trustees shall adopt and regular interest, the actuary of the retirement system shall determine for each member the proportion of earnable compensation which, when deducted from each payment of his prospective compensation earnable prior to his attainment of the age of 65 and accumulated at regular interest until his attainment of said age, shall be computed to provide at that time an annuity equal to the pension to which he will be entitled at that age on account of his service as a member. Such proportion of compensation shall be computed to remain constant.

(b) The proportion so computed for a member age 64 shall be applied to a member who attains a greater age before he becomes a member of the retirement system. The Board of Trustees shall certify to the head of each department, and the head of each department shall cause to be deducted from the salary of each member on each and every payroll of such department for each and every payroll period, the proportion of earnable compensation of each member so computed. But the head of any department shall not have any deduction made for annuity purposes from the compensation of a member who elects not to contribute if he has attained the age of 65 and has completed thirty-five years of service. In determining the amount earnable by a member in a payroll period, the Board of Trustees may consider the rate of annual compensation payable to such member on the first day of the payroll period as continuing throughout such payroll period, and it may omit deduction from compensation for any period less than a full payroll period if an employee was not a member on the first day of the payroll period, and to facilitate the making of deductions it may modify the deduction required of any member by such an amount as shall not exceed one-tenth of one per centum of the annual compensation upon the basis of which such deduction is to be made.

(c) The deductions provided for herein shall be made notwithstanding that the minimum compensation provided for by law for any member shall be reduced thereby. Every member shall be deemed to consent and agree to the deductions made and provided herein and shall receipt for his full salary or compensation, and payment of salary or compensation less such deduction shall be a full and complete discharge and acquittance of all claims and demands whatsoever for the services rendered by such person during the period covered by such payment, except as to the benefits provided under this Article. The head of each department shall certify to the Board of Trustees on each and every payroll, or in such other manner as the Board of Trustees may prescribe, the amounts to be deducted; and each of said amounts shall be deducted, and when deducted shall be paid into said Annuity Savings Fund, and shall be credited, together with regular interest thereon, to the individual account of the member from whose compensation said deduction was made.

(d) Notwithstanding the preceding provision, no deduction shall be made from any member's compensation with respect to which the State's contributions are in default.

(e) Subject to the approval of the Board of Trustees, in addition to the contributions deducted from compensation as hereinbefore provided, any member may redeposit in the Annuity Savings Fund by a single payment or by an increased rate of contribution an amount equal to the total amount which he previously withdrew therefrom as provided in this Article, or any part hereof; or any member may deposit therein by a single payment or by an increased rate of contribution an amount computed to be sufficient to purchase an additional annuity which, together with his prospective retirement allowance, will provide for him a total retirement allowance not in excess of one half of his average final compensation at the age of 65. Such additional amounts so deposited shall become a part of his accumulated contributions except in the case of disability retirement, when they shall be treated as excess contributions returnable to the member in cash or as an annuity of equivalent actuarial value.

(f) The accumulated contributions of a member withdrawn by him, or paid to his estate or to his designated beneficiary in event of his death, as provided in this Article, shall be paid from the Annuity Savings Fund. Upon the retirement of a member his accumulated contributions shall be transferred from the Annuity Savings Fund to the Annuity Reserve Fund.

(2) Annuity Reserve Fund

The Annuity Reserve Fund shall be the fund in which shall be held the reserves on all annuities in force and from which shall be paid all annuities and all benefits in lieu of annuities, payable as provided in this Article. Should a beneficiary retired on account of disability be restored to membership, his annuity reserve shall be transferred from the Annuity Reserve Fund to the Annuity Savings Fund and credited to his individual account therein.

(3) Pension Accumulation Fund

(a) The Pension Accumulation Fund shall be the fund in which shall be accumulated all reserves for the payment of all pensions and other benefits payable from contributions made by the State and from which shall be paid all pensions and other benefits on account of members with prior service credit and the lump sum death benefits for all members payable from the said contributions. Contributions to and payments from the Pension Accumulation Fund shall be made as follows:

(b) On account of each member there shall be paid annually into the Pension Accumulation Fund by the State for the preceding fiscal year an amount equal to a certain percentage of the annual earnable compensation of each member to be known as the "normal contribution," and an additional amount equal to a percentage of his annual earnable compensation to be known as the "accrued liability contribution." The rates per centum of such contributions shall be fixed on the basis of the liabilities of the retirement system as shown by actuarial valuation. Until the first valuation the normal contribution shall be two and seven hundredths per centum, and the accrued liability contribution shall be one and ninety-four hundredths per centum, of the annual earnable compensation of all members.

(c) On the basis of regular interest and of such mortality and other tables as shall be adopted by the Board of Trustees, the actuary engaged by the Board to make each valuation required by this Article during the period over which the deficiency contribution is payable, immediately after making such valuation, shall determine the uniform and constant percentage of the earnable compensation of the average new entrant, which if contributed on the basis of compensation of such new entrant throughout his entire period of active service would be sufficient to provide for the payment of any death benefit or pension payable on his account. The rate per centum so determined shall be known as the "normal contribution" rate. After the accrued liability contribution has ceased to be payable, the normal contribution rate shall be the rate per centum of the earnable compensation of all members obtained by deducting from the total liabilities of the Pension Accumulation Fund the amount of the funds in hand to the credit of that fund and dividing the remainder by one per centum of the present value of the prospective future salaries of all members as computed on the basis of the mortality and service tables adopted by the Board of Trustees, and regular interest. The normal rate of contribution shall be determined by the actuary after each valuation.

(d) Immediately succeeding the first valuation the actuary engaged by the Board of Trustees shall compute the rate per centum of the total annual earnable compensation of all members which is equivalent to four per centum of the amount of the total pension and death benefit liability on account of all members and beneficiaries which is not dischargeable by the aforesaid normal contribution made on account of such members during the remainder of their active service. The rate per centum originally so determined shall be known as the "accrued liability contribution" rate.

(e) The total amount payable in each year to the Pension Accumulation Fund shall be not less than the sum of the rates per centum known as the normal contribution rate and the accrued liability contribution rate, of the total compensation earnable by all members during the preceding year; provided, however, that the amount of each annual accrued liability contribution shall be at least three per centum greater than the preceding annual accrued liability payment, and that the aggregate payment by the State shall be sufficient, when combined with the amount in the fund, to provide the pensions and other benefits payable out of the fund during the year then current.

(f) The accrued liability contribution shall be discontinued as soon as the accumulated reserve in the Pension Accumulation Fund shall equal the present value, as actuarially computed and approved by the Board of Trustees, of the total liability of such fund less the present value, computed on the basis of the normal contribution rate then in force, of the prospective normal contributions to be received on account of persons who are at that time members.

(g) All pensions and benefits in lieu thereof, with the exception of those payable on account of members who receive no prior service allowance, and all lump sum death benefits on account of death in active service payable from contributions of the State, shall be paid from the Pension Accumulation Fund. Pensions payable under Section 9 to employees retired before the establishment of this retirement system shall be paid from the Pension Accumulation Fund.

(h) Upon the retirement of a member not entitled to credit for prior service, an amount equal to his pension reserve shall be transferred from the Pension Accumulation Fund to the Pension Reserve Fund.

(i) The Board of Trustees may in its discretion transfer to and from the Pension Accumulation Fund the amount of any surplus or deficit which may develop in the reserve held in the Annuity Reserve Fund or the Pension Reserve Fund.

(4) Pension Reserve Fund

The Pension Reserve Fund shall be the fund in which shall be held the reserves on all pensions granted to members not entitled to credit for prior service and from which such pensions and benefits in lieu thereof shall be paid. Should a beneficiary not entitled to credit for prior service and retired on account of disability be restored to membership, his pension reserve shall be transferred from the Pension Reserve Fund to the Pension Accumulation Fund. Should the pension of a disability beneficiary not entitled to credit for prior service be reduced as a result of an increase in his earning capacity, the amount of the annual reduction in his pension shall be paid annually into the Pension Accumulation Fund during the period of such reduction.

(5) Expense Fund

The Expense Fund shall be the fund to which shall be credited all money provided by the State to pay the administration expenses of the retirement system and from which shall be paid all the expenses necessary in connection with the administration and operation of the system. Biennially the Board of Trustees shall estimate the amount of money, not in excess of three-tenths of one per centum of the payroll of members, which shall be deemed necessary to be paid into the Expense Fund during the ensuing years to provide for the expense of operation of the retirement system, and such amount shall be paid to the Expense Fund for this purpose.

(6) State Contributions

(a) On or before the first day of November next preceding each regular meeting of the General Assembly of Maryland, the Board of Trustees shall certify to the Governor the amounts which will become due and payable during the biennium next following to each of the funds of the retirement system. The amounts thus ascertained shall be included in the budget bill which is submitted to the General Assembly.

The Board of Trustees shall certify one-quarter of the amount so ascertained for each year of the biennium to the State Comptroller on or before the last day of December, February, May and September. The Comptroller shall, on or before the first day of January, March, June and October, draw a warrant or warrants on the State Treasurer for the respective amounts due the retirement system. On the receipt of the warrant of the Comptroller, the State Treasurer shall immediately transfer to the retirement system the amounts due.

(b) To cover the requirements of the retirement system for the period prior to October first, nineteen hundred and forty-one, there is hereby authorized for the Pension Accumulation Fund and for the Expense Fund the use of any funds that may be provided for the payment of pensions payable under this Article prior to the passage of this act, and the use of any funds provided for the support of this retirement system, in an amendment or supplement to the Budget, or in a supplementary appropriation bill.

9. Benefits to Employees Retired Under Provisions of This Article Prior to the Establishment of This Retirement System

All pensions payable to former employees retired under the provisions of this Article and in force on the date this system is established shall be continued and paid hereafter from the Pension Accumulation Fund at the full amounts stipulated under said Article. The residue of any appropriation made for the payment of such pension shall be transferred and credited to the Pension Accumulation Fund. Any additional amounts required to continue such pensions shall be provided by an increase in the accrued liability contribution otherwise payable to the Pension Accumulation Fund.

10. Guaranty

The creation and maintenance of reserves in the Pension Accumulation Fund, the maintenance of annuity reserves and pension reserves as provided for, and regular interest creditable to the various funds as provided in Section 8 of this Article, and the payment of all pensions, annuities, retirement allowances, refunds and other benefits granted under the provisions of this Article and all expenses in connection with the administration and operation of this retirement system, are hereby made obligations of the State. All income, interest and dividends derived from deposits and investments authorized by this Article shall be used for the payment of the said obligations of the State. Any amounts derived therefor which, when combined with the regular amounts otherwise contributable by the State, exceed the amount required to provide said obligations, shall be used to reduce the regular appropriations otherwise required.

11. Exemption from Taxation and Execution

The right of a person to a pension, an annuity, or a retirement allowance, to the return of contributions, the pension, annuity or retirement allowance itself, any optional benefit or death benefit, or any other right accrued or accruing to any person under the provisions of this Article, and the moneys in the various funds created by this Article, shall be exempted from any State, county or municipal tax in the State of Maryland, and shall not be subject to execution, garnishment, attachment, or any other process whatsoever, and shall be unassignable except as in this Article specifically provided.

12. Any person who shall knowingly make any false statement or shall falsify or permit to be falsified any record or records of this retirement system in any attempt to defraud such system as a result of such act, shall be guilty of a misdemeanor, and shall be punishable therefore under the laws of the State of Maryland. Should any change or error in the records result

in any member or beneficiary receiving from the retirement system more or less than he would have been entitled to receive had the records been correct, the Board of Trustees shall correct such error, and, as far as practicable, shall adjust the payments in such a manner that the actuarial equivalent of the benefit to which such member or beneficiary was correctly entitled shall be paid.

13. Limitation on Membership

No other provision of law in any other statute which provides wholly or partly at the expense of the State of Maryland for pensions or retirement benefits for employees of the State, their widows, or other dependents, shall apply to members or beneficiaries of the retirement system established by this Article, their widows or other dependents.

14. Saving Clause

If any clause, sentence, paragraph or section of this Article shall, for any reason, be adjudged by any Court of competent jurisdiction to be unconstitutional or invalid, such adjudication shall not affect, or impair or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph or section thereof so found unconstitutional or invalid. If any clause, sentence, paragraph or section of this Article shall, for any reason be adjudged by any Court of competent jurisdiction to be unconstitutional or invalid, in any particular application, and the said clause, sentence, paragraph or section of this Article shall be constitutional and valid when otherwise applied, such adjudication shall not affect, impair or invalidate said clause, sentence, paragraph or section, but shall be confined to the particular application so found unconstitutional or invalid.

Section 2. And be it further enacted, that this act shall take effect June first, nineteen hundred and thirty-nine.